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ABSTRACT

A review of the literature concerning the relative breadths of masculine and feminine sex-role standards in our culture suggested the hypothesis that the addition of neutral items to the IT Scale for Children (a projective measure of sex-role preference) would have a greater effect on boys' scores than girls' scores. Sixteen neutral items were constructed and added to the IT Scale comprising the IT Scale-Neutral Version. Twenty-eight boys and twenty-nine girls between the ages of four years, six months, and six years, eleven were tested with both the original and the neutral versions. Results confirmed the hypothesis. There was a significant difference between scores on the original as compared to the neutral version of the IT Scale for boys, but not for girls. Interview data provided additional information concerning the functioning of the two measures in boys vs. girls. (Author)

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The Effect of the Addition of Neutral Items on It Scale Scores

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Running Head: Effect of Neutral Items on It Scale Scores

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Abstract

A review of the literature on sex-role preference suggested the hypothesis that the addition of neutral items to the It Scale for Children would have a greater effect on boys' scores than girls' scores. Sixteen neutral items were constructed and added to the It Scale comprising the It Scale-Neutral Version. Twenty-eight boys and twenty-nine girls between the ages of 4 years, 6 months and 6 years, 11 months were tested with both the original and the neutral versions. Results confirmed the hypothesis. Interview data provided additional information concerning the functioning of the two measures in boys vs. girls.

The Effect of the Addition of Neutral Items on It Scale Scores

The It Scale for Children (ITSC) (Brown, 1956) is a widely used measure of sex role preference. The scale is projective in nature, consisting of a set of pictures of sex-typed objects, and a picture of a neutral child named IT. The young subject indicates those toys, objects or activities that IT would prefer. The assumption is that the child projects his or her own preferences onto the ambiguous IT figure.

One finding that has consistently emerged from studies employing the ITSC (e.g., Brown, 1956; Hartup and Zook, 1960) is that boys show a greater preference for the masculine role than girls do for the feminine role, and that boys' scores are less variable than girls'. This finding has been explained as reflecting either a rejection of the feminine role in favor of the masculine (Lynn, 1959, 1960), or a masculine bias in the IT figure itself (Sher and Lansky, 1968).

An alternative explanation to be investigated here is that the differences between the performances of girls and boys on the ITSC results from an interaction between the current form of the ITSC and certain characteristics of feminine and masculine sex-role standards (Hartley, 1964).

It has long been recognized that, at least in our culture, little girls are allowed to exhibit a larger range of behaviors and interests than little boys (Lynn, 1959). For example, there is evidence (Rosenberg and Sutton-Smith, 1960) that the girl's role perception incorporates some aspects of boys' play roles, while the boy's role perception is more constricted, showing little preference for female play roles. This may reflect the fact that "society insists that the male eschew all womanly things almost from the cradle, and enforces these demands in a way that makes whatever is female a threat to him" (Hartley, 1959). Girls, on the other hand, are often indulged while young in their tendency to choose aspects of the male role.

Kagan (1964) suggests that behavior which greatly deviates from sex-role standards will be inhibited as a result of the child's desire to avoid social rejection. Conditions which reduce the possibility of such social rejection enhance the likelihood that boys will play with sex "inappropriate" toys (e.g., Hartup, Moore and Sager, 1963). One implication of this is that conditions which emphasize male-female differences might increase the possibility of social rejection, and therefore reduce the tendency for boys to choose non-masculine items. If this is so, boys' actual sex role preference may not be as extreme as the ITSC scores indicate. Rather, scores may be biased by the nature of the ITSC items. The

scale in its present form can easily be perceived by the child to have two extreme components: "things for boys" and "things for girls." The choice of feminine items (such as make-up) would represent a "great deviation" from the male sex-role standard for most boys, and since there are no items representing a middle ground, boys have in effect only one choice to make: masculine items. The choice of masculine items by girls may not represent such a great deviation due to the expanded sex-role standard for females (e.g., it is not unacceptable for a girl to choose the razor instead of make-up, especially if she has observed mother shaving her legs).

Brown (1958) and Lansky (1968) observe many changes in sex role behavior in recent years. Subtle changes may be occurring in the male sex role perception that cannot be detected using the ITSC in its original form which forces the boy to make extreme choices. It might be that adding neutral items to the ITSC would "de-masculinize" boys' scores by allowing them reasonable alternatives to stereotypically masculine items. On the other hand, the addition of such items should not have as great an effect on girls' scores, since girls have always been freer to choose items that were not stereotypically feminine.

The purpose of the present study is to explore the effects of adding neutral items upon ITSC scores. It is hypothesized that the addition of neutral items will have a greater effect on boys'

scores than girls' scores.

Method

Subjects

The subjects were 28 male and 29 female Caucasian children attending a local private Kindergarten. Boys ranged in age from 4 years, 6 months, to 6 years, 11 months, with a mean age of 5 years, 6.03 months (SD = 0.59 years). Girls ranged in age from 4 years, 7 months to 6 years, 6 months, with a mean age of 5 years, 7.76 months (SD = 1.00 years). The mean age for all subjects was 5 years, 6.19 months (SD = 0.82 years).

Materials

Materials used in this study included Brown's (1956) ITSC with items 1 and 12 eliminated, and a specially prepared version of the ITSC differing from the original version through the addition of neutral items (hereafter referred to as the ITSC-NV).

The neutral items were selected in the following way. Fourteen undergraduates rated 52 different toy and other common objects as masculine, feminine or neutral. Line drawings, similar in style and size to the original ITSC items were made for those items rated as neutral by at least 90 percent of the raters. Eight toy items (slide, camera, story book, kite, bicycle, teddy bear, skates, child's record player-viewer screen) were added to the sixteen standard items of the Toy Pictures section of the ITSC.

A third, neutral item was added to each pair in the eight Paired Picture sections of the ITSC (e.g., girls and boys playing together was added as an alternative to the original choice between only girls playing together and only boys playing together; an easel and paints were added as an alternative to the original choice between tools and baking articles). For a complete listing of the neutral items refer to Table 1. Xerographic copies were made of

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Insert Table 1 about here

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both ITSC cards and neutral cards in order to diminish an obvious discrepancy between the two. All copies of picture cards were then cut to 3 x 4 inch size, and mounted on heavy paper in the groups indicated in Table 1. One copy of the scale was constructed including only the original items, while a second copy included original and neutral items.

An interview was also designed consisting of the following questions:

1. What is your favorite game to play or thing to do?
2. What is your favorite toy? Next? Next?
3. What do you wear most of the time? What is your favorite thing to wear?
4. Who are your best friends? Who do you play with most of

the time?

5. What do you like to pretend you are?

Procedure

There were two test sessions for each subject, with an interval of at least seven days between sessions. Subjects were seen individually in a private room by the same female experimenter. All subjects received the ITSC, the ITSC-NV and the interview. The order of presentation of the two tests was randomly assigned such that 16 males and 14 females received the ITSC during the first session, and 12 males, 15 females received the ITSC-NV in the first session. The interview was always given during the first test session and randomly assigned to precede or follow the test. The remaining test was administered in the subsequent test session.

The administration of the ITSC and the ITSC-NV followed Brown's instructions except for the following changes. Instead of showing the IT figure (item 1 on the ITSC), the following instructions were used: "Let's pretend there's a child called IT and we want to know what IT likes. I'm going to show you some pictures and I want you to point to the things that you think IT would want to play with." This method was used to avoid the possible masculine cues involved in using the IT figure (Fling and Manosevitz, 1972) and the possible feminine cues involved in the

use of an envelope to conceal the IT figure card (Sher and Lansky, 1968). Item 12 was excluded without substitution from the scale due to the "strangeness" of the pictures. Thus, ITSC scores could range from 0 (most feminine) to 72 (most masculine) instead of Brown's original maximum score of 84. To score the ITSC-NV feminine choices always received a zero, masculine choices received a 1 in the Toy Pictures section and an 8 in the Triple (Brown's Paired) Pictures sections. These scores followed Brown's original procedure. Neutral items received a score of 0.5 or 4.0 depending upon the section. Thus, the possible range of scores on the ITSC-NV was also 0-72.

To score the interview all responses were listed on separate sheets according to question rather than subject. These lists were given to twelve raters from the same group of raters described earlier with the following instructions:

> The following responses were given by 4 1/2 to 6 1/2 year old children. The items on each page are responses to the question at the top of the page. Please rate the feminity or masculinity of each response on the basis of the following scale:
>
> 1. definitely feminine
> 2. somewhat feminine
> 3. can't tell - neutral

4. somewhat masculine

5. definitely masculine

The score to be assigned to each response was determined by averaging across raters. A total interview score for each subject was obtained by summing individual question scores for question one through four. Where subjects gave more than one response to a question the score for that question was determined by averaging the ratings assigned to each of the separate responses. Question five, which was of a more projective nature was considered separately. This question will hereafter be referred to as PQ5.

Results

An analysis of covariance and a regression analysis indicated that order of presentation of tests and age of subjects had no effect on ITSC or ITSC-NV scores. Therefore data were combined across these variables for the subsequent analysis.

Table 2 presents the means and standard deviations obtained.

Insert Table 2 about here

A 2 x 2 analysis of variance was computed to determine the effects of sex and version of test. This analysis revealed a significant Sex x Test interaction ($F = 12.84$, $p < .001$).

A test of simple effects was then performed. As shown in Table 3, boys scored higher than girls regardless of test

Insert Table 2 about here

($F = 39.11$, $p < .001$ for ITSC; $F = 17.04$, $p < .001$ for ITSC-NV.) Boys scored significantly higher on the ITSC than the ITSC-NV ($F = 14.30$, $p < .001$), while the mean scores for girls on the ITSC and ITSC-NV did not differ significantly. Thus, the major hypothesis of the study was confirmed.

A comparison of the variances obtained for boys and girls indicated that girls' scores are more variable than boys' on both the ITSC ($F = 4.87$, $p < .001$) and the ITSC-NV ($F = 5.0$, $p < .001$).

Mean scores for interview questions appear in Table 4.

Insert Table 4 about here

Table 5 presents the intercorretations among ITSC scores,

Insert Table 5 about here

ITSC-NV scores, Total Interview score, and individual interview questions. These correlations are computed for the total sample and for boys and girls separately. ITSC and ITSC-NV scores are highly correlated for all groups. Also, considering the boys and girls together, Total Interview scores are highly correlated

with both the ITSC and the ITSC-NV. This indicates that both versions of the IT scale and the interview are tapping similar dimensions and that girls score differently from boys on all three measures. Within sexes however the correlations between tests and the interview total are not significant.

Looking at PQ5, an interesting set of relationships emerges. Both the ITSC and the ITSC-NV are significantly related to PQ5 when the entire sample is considered. For girls alone, ITSC scores and PQ5 are significantly related while the correlation between ITSC-NV and PQ5 approaches significance ($p < .054$). For boys ITSC-NV scores are significantly related to PQ5, while PQ5 and ITSC scores appear to be unrelated.

Discussion

The data support the hypothesis that the addition of neutral items to the ITSC should have a greater effect on boys scores than girls scores. Boys scored significantly lower (i.e., in a less masculine direction) on the ITSC-NV than on the ITSC while girls scored about the same on both tests.

Interview scores correlated with both versions of the It scale for the total sample, however, interview scores did not predict It scale scores within either sex. There are several possible explanations. Some authors have made a distinction between sex-role preference and adoption. Sex role preference deals with the desire to adopt

a certain behavior or seeing one behavior as more desirable. According to Brown, this is the dimension with which the ITSC is concerned. Sex role adoption is "the actual adoption of behaviors characteristic of one sex or the other" (Lynn, 1959). The interview questions seem to measure this kind of behavior. While a child can prefer and adopt the same sex role (Biller, 1969; Fling and Manosevitz, 1972), this is not necessarily the case (Brown, 1958; Lynn, 1959). This study may provide additional data that preference and adoption are not always highly related.

Another possible explanation for the discrepancy is that the projective nature of the It scale allows children to make different kinds of responses than would be possible in the interview. Compared to the It scale the interview requires the child to answer objective questions directly. This could easily produce "clear social expectations which are overridden only for the high autonomy children with inappropriate sex preference" (Thompson and McCandless, 1970). Thus, interview scores may represent other personality traits in addition to adoption.

It is interesting then to look at the correlations between the two versions of the It scale and the more projective interview question, PQ5 ("What do you like to pretend you are?"). PQ5 proved to be important for both boys and girls. PQ5 correlated

positively with the girls' scores on both tests. For boys ITSC-NV scores are significantly correlated with PQ5 scores while ITSC scores are not. Thus, the neutral version may be giving more information about sex preference for boys than the standard version of the It scale, while both versions give about the same indication for girls.

To summarize, the inclusion of neutral items in Brown's It scale does make a difference in scores for boys, but not for girls. The It scale in its original form provides a wide range of choices for girls and works as a fine measure of their sex role preferences. The scale may need changes in order to provide an equivalent range of choices for boys due to a narrower sex role standard. The addition of neutral items may broaden this range and provide more information about boys' true sex role preferences. This is indicated by the significant correlation between the ITSC-NV and PQ5 as compared to the lack of relationship between PQ5 and the standard version of the It scale.

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Footnotes

The research reported here served as partial fulfillment of the requirements for the degree of Master of Arts for the second author. Copies of this article can be obtained from Dr. Ellen Dickstein, Department of Psychology, Southern Methodist University, Dallas, Texas, 75275.

Table 1

Placement of It Scale Items

A. Toy Pictures Section

	Card 1			Card 2	
Cradle	Car	*Kite*	Soldiers	*Story Book*	Baby Buggy
Camera	Tea Set	Bulldozer	*Teddy Bear*	Baby Bath	Jacknife
	Card 3			Card 4	
Slide	Necklace	Tractor	Train Engine	Purse	*Record Player*
Doll	Dump Truck	*Skates*	*Bicycles*	Gun	High Chair

B. Triple Pictures Section

	Card 1			Card 2	
Indian Princess	*Indian Wrapped in Blanket*	Indian Chief	Trousers and Button Shirt	Dress with Full Skirt	*Pullover Top Bell Bottom Jeans*
	Card 3			Card 4	
Parts to Make a puppet	Sewing Articles	Model Air-plane parts	*Soap, Comb Towels*	Make-up	Shaving Equipment
	Card 5			Card 6	
Wrench, Pliers Screwdriver	Equipment to Wash Clothes	*Gardening Tools*	Men's Tie Shoes	*Rain Boots*	High-Heeled Shoes
	Card 7			Card 8	
Girls Playing	*Boys and Girls Playing*	Boys Playing	Baking Equipment	Saw, Ruler Hammer, Nails	*Easel and Paints*

Note. Italicized items appear in the IISC-NV only.

TABLE 2

MEANS AND STANDARD DEVIATIONS OF SCORES ON THE TTSC AND THE TTSC-NV

Test	N	Mean	SD
Boys:			
TTSC	28	61.07	10.33
TTSC-NV	28	53.68	9.22
Girls:			
TTSC	29	32.17	15.21
TTSC-NV	29	34.60	20.35

TABLE 3

SUMMARY OF ANALYSIS OF VARIANCE

Source	df	MS	F
Between Sexes at IISC	1	11,897.27	39.11**
Between Sexes at IISC-NV	1	5,183.41	17.04**
Within Cell Error	55	304.17	
Between Tests at Male	1	765.16	15.30**
Between Tests at Female	1	85.69	1.00
Sex X Tests	1	687.41	12.83**
Tests X Subjects W Groups	55	53.57	

** $p < .001$

TABLE 4

MEAN SCORES FOR INTERVIEW QUESTIONS

	Question 1	Question 2	Question 3	Question 4	F.Q.
Boys	3.21	4.00	3.56	4.16	4.54
Girls	2.65	2.32	1.68	1.82	2.16

TABLE 5

CORRELATIONS BETWEEN GROUPS, TESTS, AND PQ's

	FESC-FESC-NV	FESC-TOTAL	FESC-NV-TOTAL	FESC-PQ's	FESC-NV-PQ's
Boys	.54***	-.11	.05	.03	.44**
Girls	.89***	.24	.05	.37**	.31*
All Subjects	.88***	.60***	.48***	.65***	.59***

* $p < .054$
** $p < .05$
*** $p < .001$